

DISCLAIMER: These Standard Operating Procedures (SOP's) are for the exclusive use of Navy Public Works Center (PWC) Norfolk. They are promulgated as guidance for their NAVFAC Commands. If intended to be used by other activities, they must be tailored to each activity's particular requirements and must be reviewed/approved by the activity's safety professionals prior to use.

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## STANDARD OPERATING PROCEDURE LOCK-OUT/TAG-OUT PROGRAM FOR THE STEAM DISTRIBUTION SYSTEM

1. Purpose: To establish procedures for the protection of personnel and property as work is performed on the Steam Distribution System.

2. Application: The requirements apply to all situations where the unexpected energizing of the system would be likely to endanger personnel and property; and is intended to apply to activities such as installing, repairing, operating and maintaining the system.

3. General Procedure: When a system is to be de-energized for any reason, all valves will be closed, tagged and locked. If more than one shop is working on the system, a second tag and lock will be placed on the valve to prevent one crew from restoring the system before the second crew is clear. All tags and keys will be turned over to the personnel working the outage/job. When the outage/job is complete, the tags and locks will be removed and the system restored.

4. Responsibility: It is the responsibility of each department to develop, document and implement a policy and procedures for lock-out/tag-out.

a. Supervisors are responsible for:

(1) Establishing and implementing the lock-out/tag-out program.

(2) Enforcing compliance with the procedures.

(3) Conducting periodic inspections to determine compliance. The inspection will be conducted by an authorized employee other than the one utilizing the procedure.

(4) Ensuring all assigned and newly assigned employees are trained and instructed on the procedures.

(5) Giving periodic refresher training at least annually.

(6) Ensuring that all employees read the contents of this Chapter, at the time of initial training and at least annually thereafter.

(7) Ensuring sufficient number of tags and lockout devices are available.

- (8) Issuing and recording use of lock out devices.
- (9) Designating the Job Safety Coordinator for each job.
- (10) Ensuring a Safety Brief is held prior to every lockout/tagout.
- (11) Keeping tags and stubs for a period of one year from clearance date.

b. The Job Safety Coordinator is responsible for the following:

(1) Determining which valves will be operated to isolate and relieve the pressure on the system being secured. (For lock-out/tag-out of pumps refer to Electrical SOP.)

(2) Designating the employee(s) that will secure the system.

(3) Issuing instructions, tags and locks as required to de-energize the system to the personnel operating the valves.

(4) Holding a Safety Brief with all personnel involved in the lockout/tagout.

(5) Ensuring the Briefing Sign-in Sheet is forwarded to the Division Safety Coordinator.

(6) Ensuring all tags are reported to Building P-1 Trouble Desk.

(7)

c. The Division Safety Coordinator is responsible for retaining a file of Briefing Sign-in Sheets.

d. Each employee shall be responsible for understanding and complying with the established procedures.

##### 5. Preparations:

a. All involved personnel will be briefed as to the scope of the work, scheduled time and anticipated duration of the outage. This will include any Maintenance Department, Power Plant, Contractor and ROICC office representatives.

b. A Briefing Sign-in Sheet will be kept for each outage noting all employees and representatives involved. The Work Order number, Contract number, date and time of briefing will be noted.

##### 6. Procedures for lock-out/tag-out:

- a. A red tag stating “DANGER-HOLD-MAN ON SYSTEM-DO NOT OPERATE” will be placed on the valve to indicate the system is de-energized. The tags will be located in such a position as to be plainly visible to any potential valve operator.
- b. The operator(s) will provide P-1 Trouble Desk with the red tag information (location, valve number, date and time) prior to operating the valve.
- c. Red valve box covers with signs labeled “DANGER-MAN ON SYSTEM-DO NOT OPERATE” will be used for underground valves in conjunction with red tags.
- d. Lock the valve in the proper position and place the tag. The locking devices will be installed in such a manner as to forbid operation of the valve.
- e. Give the clearance stub(s) and key(s) to one of the following personnel:
  - i. Job Safety Coordinator if Work Center 629 is working the job,
  - ii. Contractor Representative via ROICC Representative, or
  - iii. Maintenance personnel working on system.
- f. Before performing any work, verify that the system is de-energized.

**NOTE: All valve operations on the Steam Distribution System will be accomplished in accordance with SOPs 629STM4 Close Main Line Valve and 629STM17 Steam Commodity Operations & Communications.**

7. Step-by-step procedures for filling out the lock-out portions of the tags:

- a. The Job Safety Coordinator will give the tag and lock to the employee to install.
- b. The employee will call in the serial numbers to P-1 so that they can be recorded in the tag-out log.
- c. Complete the following sections on the top half of the tag:
  - (1) Location: Write the nearest building number/landmark.
  - (2) Valve no.: Write the valve number on this tag.
  - (3) Lock no.: The serial number of each lock and key.
  - (4) Tagged-out for: Name of supervisor requesting system shut-down.
  - (5) Time and Date: Time and date of tag-out.

(6) Registered by: Check box indicating how tag-out information was reported to P-1.

(7) Tag placed by: Name of employee affixing tag to valve.

d. Complete the following sections on the bottom half of the tag (clearance stub):

(1) Location: Same as 7.c.(1) above.

(2) Valve No.: Same as 7.c.(2) above.

(3) Lock No.: Same as 7.c.(3) above.

(4) Tagged-out for: Same as 7.c.(4) above.

(5) Tag placed by: Same as 7.c.(7) above.

e. After the valves are tagged and locked, the employee will remove the bottom half and return it with the lock key to the Job Safety Coordinator, the contractor or the maintenance personnel. The employee now calls information in to P-1 to be logged.

f. After receiving the bottom half of all tags and lock keys, the Job Safety Coordinator will give permission for work to begin on the system.

8. Step-by-step procedures for clearing the tags:

a. Only the Job Safety Coordinator or his appointed representative may clear tags. The Job Safety Coordinator will instruct the employee(s) on which tags to clear and issue the appropriate lock key(s).

b. Prior to clearing tags, the system should be visually inspected, ensuring all components are in place and all personnel are clear of the system. The employee will complete the clearance sections of the tag and stub and call in clearance tag information to P-1.

c. The employee removing the tag will complete the following sections on the tag:

(1) Tag cleared: Time and date the tag was cleared.

(2) Cleared by: Check box indicating how clearance was given and tag information reported to P-1.

(3) Tag removed by: Name of employee operating valve and verifying the system is clear and ready to be re-pressurized.

d. Employee will complete the following sections on the clearance stub:

(1) Tag cleared: Same as 8.c.(1) above.

(2) Cleared by: Same as 8.c.(3) above.

e. Upon receipt of both halves of the tag, the Job Safety Coordinator will check for accuracy and completeness of the tags.

f. Tags and clearance stubs will be returned to the Work Center Supervisor. The tags will be held for a period of one year from the date of clearance.

## SAFETY TAG USE POLICY PWC UTILITIES

- \* THREE TYPES OF TAGS ARE TO BE CONSIDERED SAFETY USE TAGS. THE MOST IMPORTANT ONE AND THE ONE WITH THE MOST STRINGENT CONTROLS IS THE "DANGER HOLD" TAG, NEXT IN IMPORTANCE IS THE YELLOW "CAUTION" TAG, AND THEN THE "REPAIR" TAG. PWCNORVAINST 5100.33D HAS DETAILED INSTRUCTIONS ON LOGGING PROCEDURES FOR "DANGER HOLD" TAGS. TRACKING OF "CAUTION" TAGS AND "REPAIR" TAGS WILL BE ACCOMPLISHED BUT AT THE SUPERVISORS DISCRETION UNTIL A PROCEDURE IS DEVELOPED.
- \* RED "DANGER HOLD" TAGS WILL BE USED ONLY FOR ISOLATING ENERGY SOURCES FROM MEN WORKING. THEY WILL NOT BE USED FOR OPERATIONAL REASONS OR TO INDICATE THAT A CIRCUIT OR SYSTEM IS DOWN FOR REPAIRS.
- \* ONLY "DANGER HOLD" TAGS WITH A SEQUENTIAL SERIAL NUMBER PREPRINTED ON BOTH TOP AND BOTTOM WILL BE USED FOR LOCKOUT/TAGOUT.
- \* "DANGER HOLD" TAGS WITHOUT THE PRE-PRINTED SERIAL NUMBERS WILL BE PHASED OUT AND WILL NOT BE PERMITTED AFTER 1 JUNE 1992.
- \* A YELLOW "CAUTION" TAG WILL BE USED TO INDICATE THAT THE SYSTEM IS DOWN FOR OPERATIONAL REASONS, BUT IN NO CIRCUMSTANCES WILL BE USED IN PLACE OF A "DANGER HOLD" TAG.
- \* A YELLOW "REPAIR" TAG WILL BE USED TO INDICATE A SYSTEM IS DOWN FOR REPAIRS.
- \* LOCKOUT/TAGOUT PROCEDURES MUST BE FOLLOWED IN ACCORDANCE WITH PWCNORVAINST 5100.33D AND UTILITIES PROCEDURE (NUMBER NOT ASSIGNED AS YET).